



# Health in Rural Missouri

## Older Adults & Senior Health



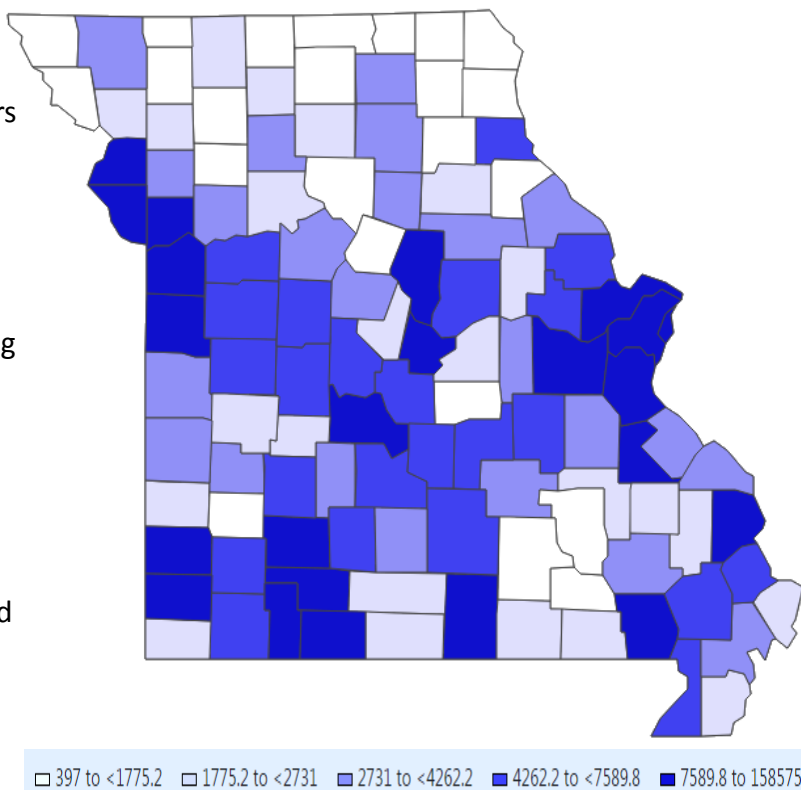
Communities at differing urbanization levels vary in their social, environmental, economic, and demographic features which

significantly impacts the extent and variety of health issues seen by each community. Senior populations in rural regions are considered to be a high risk demographic. This is evident in Missouri, where 101 of the 115 counties are classified as rural, and 15% of the population in the state is 65 years of age or older, a demographic that encounters a high burden of health issues. A 2011 Missouri county-level study indicated that compared with urban Missouri elders, a higher percentage of Missourians 65+ living in rural regions lacked access to healthy foods, did not meet cancer screening guidelines, engaged in more risk behaviors, had less access to healthcare, and tended to have a higher incidence of chronic diseases such as; diabetes, COPD, cancer, arthritis, and vision impairment.<sup>18</sup> As of 2013, the elderly population (65+) in Missouri was 907,777; males 396,689, females 511,088 (Figure 1). Out of these, 380,719 (42%) of these individuals reside in rural Missouri; 172,971 males, 207,748 females. The remaining 527,058 (58%) are located in urban areas; 223,718 males, 303,718 females.<sup>12</sup> It is estimated that more than 25% of Missouri's population will be over the age of 60 by the year 2020, an increase of 29% from 2012.

### General Missouri Health Status

- The percentage of Missourians 65+ that indicated that they feel they have either a fair or poor general health status is 30.6%.<sup>9</sup>
- The prevalence of all Missourians 65 years and older that reported having been told by a physician at least once that they: have arthritis, 56.7%; have a vision impairment, 35.3%; are overweight, 38.8%; are obese 27.1%.<sup>9</sup>
- 35.4% of Missouri seniors reported having an activity limitation compared with an average of 21.2% of 18-64 year olds.<sup>9</sup>
- Between the years 2012 (16.6) and 2013 (19.1) there has been a 15% increase in the amount of Missouri seniors who are \*food insecure. Food insecurity in Missouri is higher in rural areas compared with urban.<sup>4</sup>
- 75,000 elderly Missourians have supplemental Medicaid in addition to Medicare; a rate of 10.3 in rural Missouri and 7.5 in urban per 1,000 residents.<sup>10,20</sup>
- Approximately 5% of Missouri seniors are in skilled nursing facilities.<sup>7</sup>

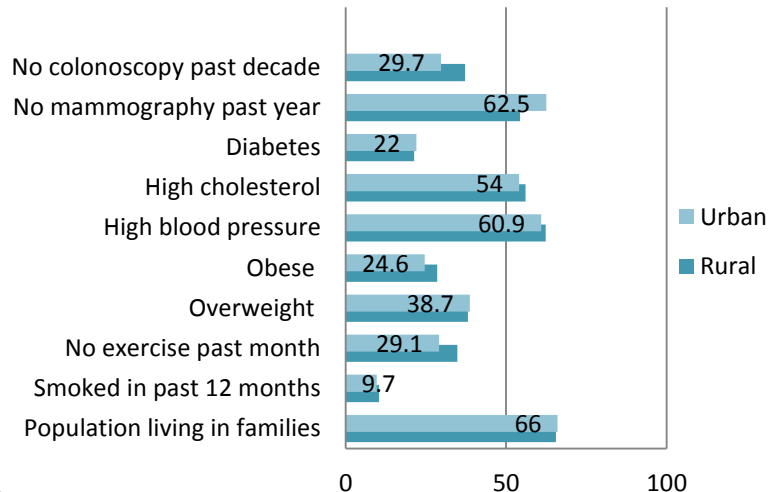
Figure 1: Population of Missouri residents ages 65+<sup>12</sup>



## Urban/Rural Dichotomy

- Figure 2 compares the percent of selected health factors rural and urban Missouri seniors indicated during a 2011 county- level health study.<sup>9</sup>
- Rates of cancer deaths for older adults per 100,000 are higher in rural Missouri for Leukemia, breast, skin, stomach, esophageal, and oral cancer (Figure 3).<sup>10</sup>
- Hospitalization rates due to a chronic disease for rural Missouri seniors are generally lower than urban, however, death rates for these diseases are higher in rural areas per 10,000 residents (Figure 4).<sup>10</sup>
- Per 10,000 residents, elderly rural Missourians have higher hospitalization rates of; chronic renal failure (2.1 vs 1.9), heart disease (548.2 vs 531.4) and liver disease (10.2 vs 9.4).<sup>10</sup>
- A rate of 28.0 rural seniors were injured due to over-exertion compared with 24.7 urban seniors, per 100,000 Missouri residents.<sup>10</sup>
- The rate of emergency room visits per 1,000 people in 2013 was 333 for rural Missouri seniors and 268.4 for urban seniors. Rates for 18-64 years olds were higher than the 65+ age group for both rural and urban Missourians.<sup>10</sup>
- The rate of older adult death due to suicide in rural Missouri per 100,000 residents is 18.4, 16.8 caused by firearm; the rate in urban Missouri is 16.7, 12.5 caused by firearm.<sup>10</sup>
- Per 100,000 elderly Missourians, the rate of injury due to motor vehicle accidents is 377.7 in rural Missouri and 382.9 in urban Missouri.<sup>10</sup>
- 23.2% of urban Missouri seniors are obese compared with 28.3% of rural seniors.<sup>9</sup>

**Figure 2. Percent of Rural/Urban Health Status Dichotomy for Missouri Residents ages 65 Years and Older<sup>9</sup>**

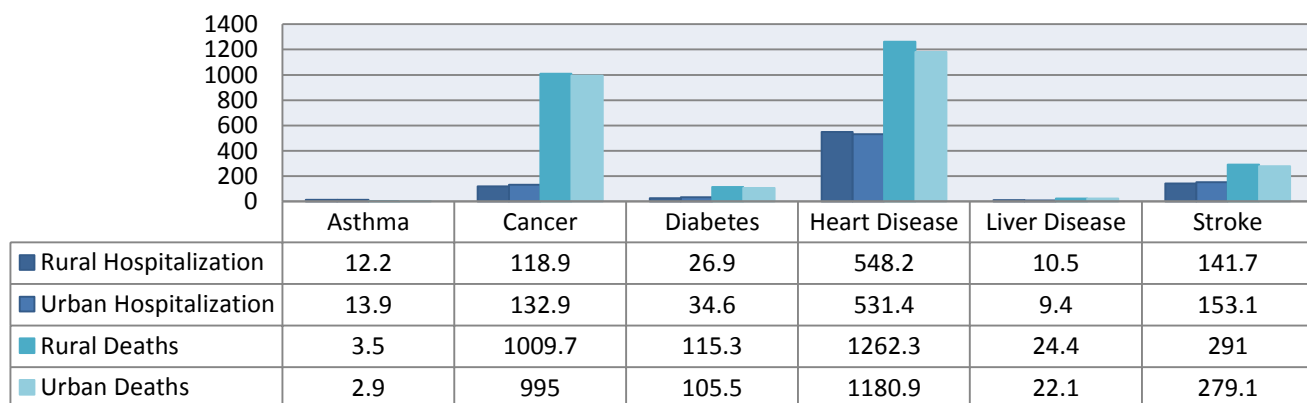


**Figure 3. Type of Cancer<sup>10</sup>**

Type of Cancer	Rural Death Rate	Urban Death Rate
Oral	14.1	11
Esophagus	20.9	19.6
Stomach	15.1	10.7
Colon/Rectum/Anus	88.5	97.5
Pancreas	61.3	62.3
Trachea/Bronchus/Lung	300.9	333.4
Skin	15.3	13.2
Breast	58.5	56.2
Prostate	48.2	56.2
Bladder	27	27.4
Leukemia	45	38.7

Death Rate per 100,000 Residents

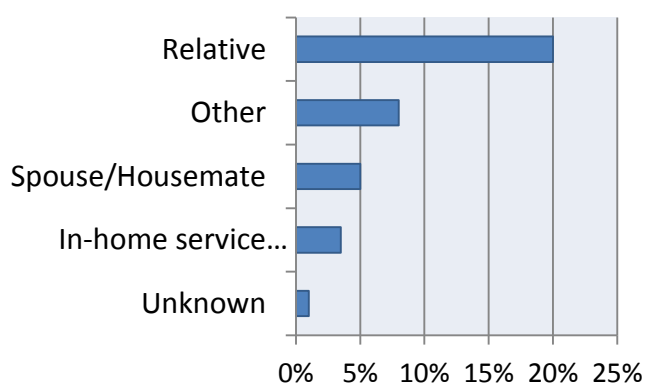
**Figure 4. Hospitalization Rates per 100,000 residents and Death Rates per 10,000 residents for Urban and Rural Seniors in Missouri.<sup>10</sup>**



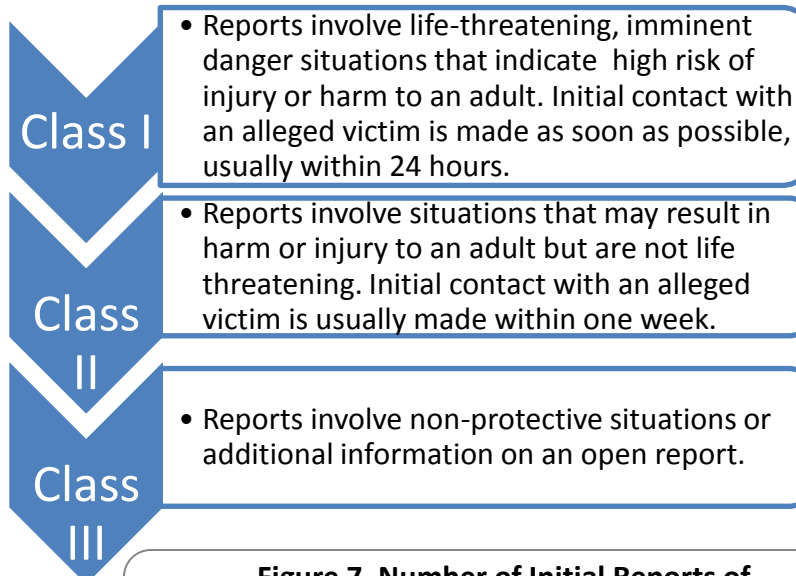
## Elder Abuse

- Elder abuse is defined as physical, emotional, sexual or financial harm and intentional, unintentional or self neglect of an older adult.<sup>6</sup>
- There are 3 classes of elder abuse reports used to define the urgency of each report (Figure 5).<sup>6</sup>
- In Missouri, the rate of reported elder abuse is 4.1; 5.5 in urban areas and 2.3 in rural areas per 100,000 residents.<sup>10</sup>
- Physical abuse was the most common form of elder abuse reported for urban Missouri seniors at a rate of 1.9. Spousal/partner abuse had the highest rate of reported elder abuse for rural Missouri seniors at a rate of 1.1, per 100,000 residents.<sup>10</sup>
- Relatives have the highest rate of being an alleged perpetrator (20% of all cases) (Figure 6).<sup>6</sup>
- Reports for elder abuse aged 60+ in Missouri increased 23.8% between the years 2007 and 2011. (Figure 7).<sup>6</sup>
- The likelihood of being abused increases with age for Missourians 65+.<sup>6</sup>
- Underreporting of elder abuse is a significant barrier to collecting adequate data.<sup>6</sup>
- The Missouri Department of Health and Senior Services provides an Adult Abuse and Neglect hotline to report suspected elder abuse. The hotline number is **1-800-392-0210**.

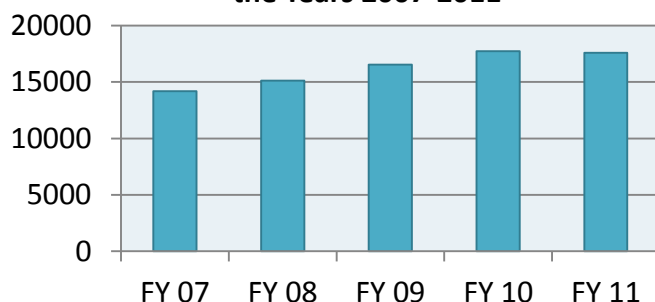
**Figure 6. Relationship of Alleged Perpetrator in Missouri Elder Abuse Reports<sup>6</sup>**



**Figure 5. Three Classes of Elder Abuse Reports<sup>6</sup>**



**Figure 7. Number of Initial Reports of Abuse, Neglect, and Financial Exploitation for Missouri Elders Between the Years 2007-2011<sup>6</sup>**



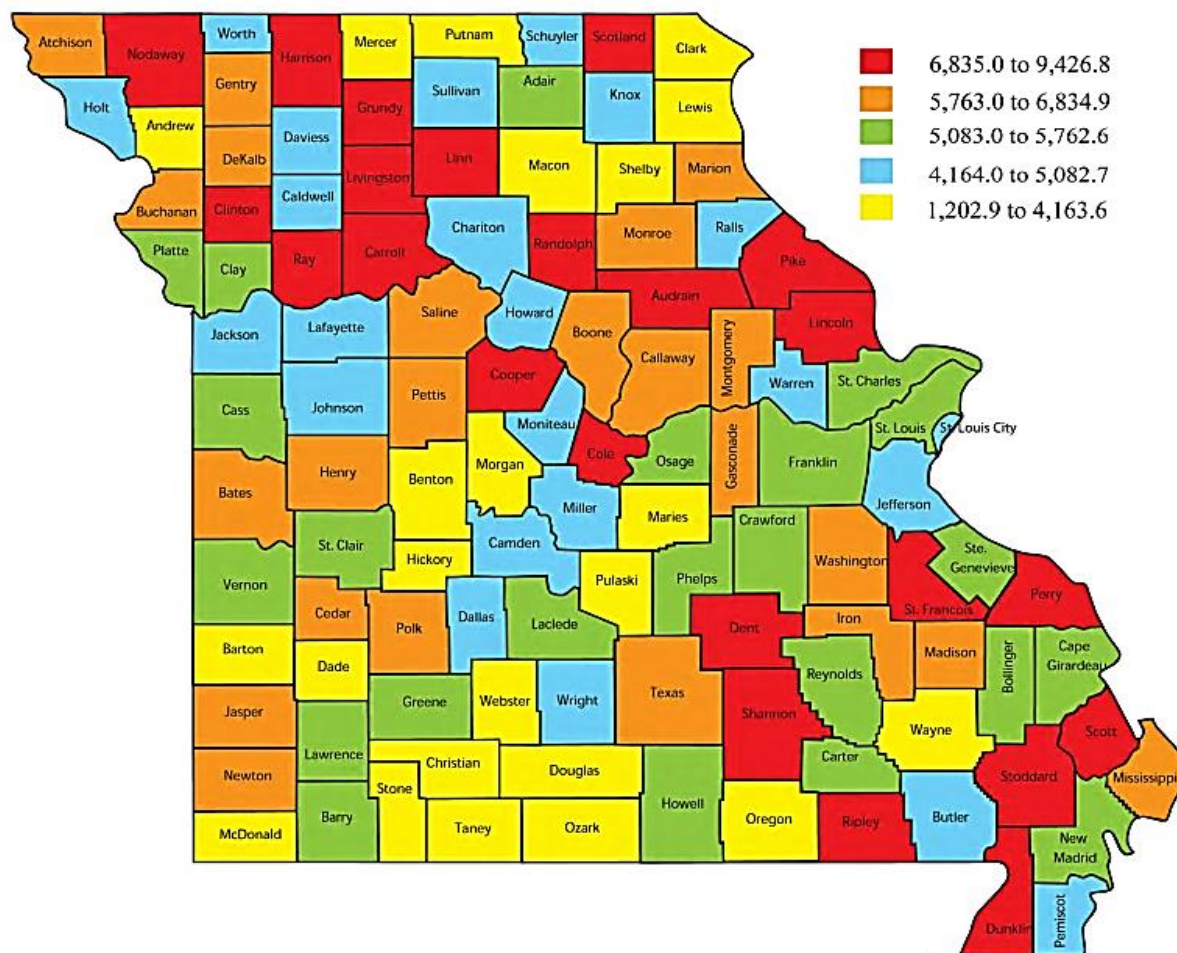
## Oral health & Older Adults

- In general, Missouri seniors are not receiving as much dental care as the younger populations. Living in a skilled nursing facility increases the risk factors for poor oral health.<sup>7</sup>
- Elderly Missourians have a high risk of periodontal disease.<sup>13</sup> In 2009, 22% of Missouri seniors in skilled nursing facilities had severe periodontal disease.<sup>7</sup>
- The median percentage of Missourians who have had all their permanent teeth extracted is 24.9%, compared with the National median of 16.1%.<sup>13</sup>
- Medicare does not reimburse patients for routine dental care, causing monetary barriers for some.<sup>13</sup>
- Dentist to population ratio in urban Missouri is 1503:1 and 2969:1 in rural Missouri. There are zero dental licensees in 5 counties, all rural. 99 of the 115 Missouri counties are designated Dental Health Professional Shortage Areas.<sup>19</sup>

## Injury from Falls

- The rate of death from falls for elderly Missourians is 67.2; rural 47.5, urban 80.2.<sup>10</sup>
- The rate of hospitalizations and ER visits due to injuries from falls for Missourians ages 65 years and older, per county, is displayed in Figure 8. Out of the 23 Missouri counties with the highest rate of injury due to falling, 22 are rural counties.<sup>16</sup>
- Hip fractures are the most frequent injury due to falls per 100,000 Missouri seniors. Fall induced hip fractures in rural areas have a rate of 951.9 compared with 760.3 in urban Missouri.<sup>10</sup>
- Per 100,000 residents, a rate of 13.4 elderly Missourians have been admitted to the ER for fractures related to injuries; 14.8 in rural areas, 11.9 in urban areas.<sup>10</sup>

**Figure 8. Rate of Hospitalizations and ER Visits for Injuries From Falls for Missouri Adults age 65+, per 100,000<sup>16</sup>**



## Transportation & Elderly Residents

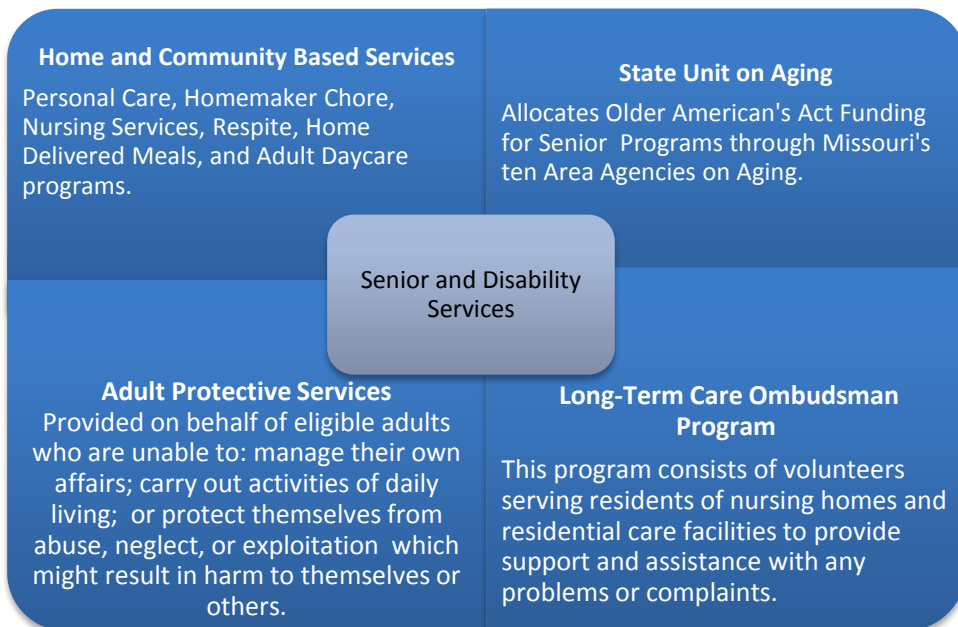
- Research has shown that the majority of people outlive their ability to drive by 6-10 years.<sup>2</sup>
- Elderly Missourians living in rural areas tend to be more isolated than those in urban areas. 88.1% of rural Missouri seniors currently obtain a driver's license, compared with 89.3% of urban Missouri seniors.<sup>9</sup>
- Options for public transportation are more limited in rural Missouri when compared with urban. The OATs Bus serves all 14 urban counties and only 85 of the 101 rural counties. The Southeast Missouri Transportation System (SMTS) serves 20 rural counties. Although limited, transportation services of some nature are available for elderly citizens in all 114 counties and St. Louis City.<sup>21</sup>
- Not having the ability to drive can force people into nursing facilities sooner than needed, therefore, potentially decreasing their overall quality of life.<sup>2</sup>



## Missouri Taking Action

- There are a variety of support services offered in Missouri that focus on improving the health and quality of life for the senior population.
- The Missouri Coalition for Quality Care (MCQC) supports funding with the aim of keeping elderly citizens in their own homes as long as possible. The MCQC provides assistance to large rural sections of the state.<sup>5</sup>
- The Alzheimer's Caretaker Respite Assistance Program provides family caregivers either the time to do necessary or desired activities or provide needed products for the person with dementia.
- Additional Senior & Disability Services are listed in Figure 9.<sup>15</sup>

**Figure 9. Senior and Disability Services available for Elderly Adults in Missouri.**



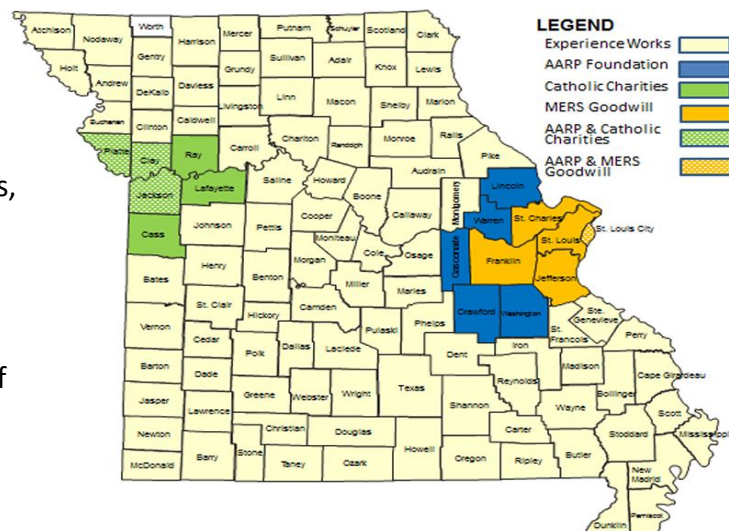
## Missouri Association of Area Agencies on Aging (AAA)

- Designed to develop and implement services and programs for older adults at the local level (Figure 10)<sup>11</sup>
- Missouri has 10 AAAs. Nine of the 10 AAA's provide services in rural areas.<sup>11</sup>
  - Legal Services
  - Nutrition--both congregate and home-delivered
  - In-Home Services--which might include homemaker, chore, personal care or respite
  - Disease Prevention/Health Promotion
  - Access-- which includes transportation, information and assistance, advocacy, outreach, and case management at some AAAs.

**Figure 11. Senior Employment Opportunities per County for the State of Missouri.<sup>12</sup>**

## Senior Employment

- Experience Works is a national nonprofit organization that provides training and employment opportunities for older adults. Experience Works covers 108 Missouri counties, encompassing a high number of rural areas (Figure 11).<sup>3</sup>
- The Senior Community Service Employment Program (SCSEP) offers assistance in finding employment for older adults for the purpose of sustained self-sufficiency.<sup>17</sup>
- Figure 11 depicts senior employment options throughout the state.<sup>14</sup>



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